

[Next](#) [Up](#) [Previous](#) [Contents](#) [Index](#)

Next: Ilan Roth JOVIAN ELECTRONS Up: Session 2: The Previous: Daniel Santos-Costa and Sebastien

Kaiti Wang, S. J. Bolton, S. Gulkis, and S. M. Levin

**ENERGETIC ELECTRON DISTRIBUTIONS AND PRECIPITATIONS IN THE JOVIAN SYNCHROTRON
ZONE (Poster)**

ENERGETIC ELECTRON DISTRIBUTIONS AND PRECIPITATIONS IN THE JOVIAN SYNCHROTRON ZONE

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Relativistic electrons (10-50 MeV) play an important role to account for the observed synchrotron decimetric radiation in Jupiter's inner radiation belt. Understanding the electron is required to interpret the synchrotron emission observations and the associated on-going physical processes.

Instead of assuming electrons drift along constant L-shell at the magnetic equator as many earlier studies adopted, we calculate the size of the theoretical drift-loss cone for relativistic electrons using both the O6 and VIP4 magnetic field models. The associated electron precipitations in the Jovian atmosphere are also calculated. Model maps of the synchrotron emission for specific electron distributions are shown for comparison.

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